National Survey of Pedestrian and Bicyclist Attitudes and Behaviors

J. Neil Russell, Survey Statistician

US Department of Transportation - Bureau of Transportation Statistics neil.russell@bts.gov • 202-493-2147





Overview

The 2002 National Survey of Pedestrian and Bicyclist Attitudes and Behaviors was jointly sponsored by the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) and the Bureau of Transportation Statistics (BTS) and administered by The Gallup Organization. The goals of the survey were to ascertain the scope and magnitude of bicycle and pedestrian activity, and the public's behavior and attitudes regarding bicycling and walking. This national survey is the first of its kind designed specifically to benchmark bicycle and pedestrian trips, behaviors, and attitudes. The survey findings will serve as a foundation to improve the environment and infrastructure to support these two transportation modes. Also, the findings will be used in support of pedestrian and bicyclist safety-related activities.

The survey asked questions, for both bicyclists and pedestrians, on the following topics:

- Frequency of bicycling and walking
- Trip information including: origin, destination, length of trip time, trip distance, and use of origin/destination, trip purpose, facility use, and topography
- Reasons for not biking and/or walking
- Perceptions of safety
- Safety practices
- Facilities availability (e.g., sidewalk or path)
- Community design
- Safe routes to school
- Sociodemographics

The survey was fielded during the period of June 11 to August 20, 2002. Survey respondents were asked to provide information about their overall bicycling and walking behaviors during the past 30 days with a focus on individual trips taken on the most recent day they bicycled or walked during that period. Specific trip data (including trip origin and destination, purpose, time, distance, etc.) were collected for up to six walking and six bicycling trips on the most recent day traveled. (See Glossary for the definition of a trip.) These data cannot be used to project year-round bicycling and walking behaviors, but offer a solid reflection of biking and walking activity for the summer of 2002.

NHTSA and BTS are publishing a series of reports based on the survey data. A highlights report covering major findings from the survey will soon be released. During 2003, NHTSA plans to publish a three-volume report including an expanded summary of key findings, a detailed description of all findings and major analyses from the data, and the survey methodology. The results presented here are preliminary and are subject to change based on finalization of the survey data.

Glossary of Key Terms

Adults age 16 or older who rode a bicycle at least once during a 30 day period over the summer of 2002.

Pedestrians Adults age 16 or older who walked, ran, or jogged outdoors for at least 5 minutes at least once during a 30 day period over the summer of 2002.

A trip is defined as going from a starting point to a destination for a specific Trip purpose without any stops along the way. If you left your house to go on a walk or bike ride with no real destination and returned to your house that would be considered ONE trip. If you walked or rode from your house to a friend's house for a visit, then walked or rode back home, that would be TWO trips. If you walked or rode from your home to a friend's house, then to a store, and then back home again, that would count as THREE trips.

Facilities can be roads, shoulders of roads, paths, or sidewalks. The **Facilities** survey asked which facility was used the most during the trip.

Summer months were defined as May through August 2002.

Amount Of Walking And Trip Information

Prevalence of Walking

Eight out of ten of the driving age public (78.7%) walked, ran, or jogged outdoors for five minutes or more at least once during a 30-day period over the summer of 2002. This represents approximately 164 million pedestrians age 16 years or older. Older adults (age 65 and older) were much less likely to walk than persons of younger ages. However, two-thirds (21 million) of these older adults walked during the summer months.

Marvin Levy, Research Psychologist

US Department of Transportation - National Highway Traffic Safety Administration

marvin.levy@nhtsa.dot.gov • 202-366-5597

Reasons for Not Walking

One in five (21.3%) persons age 16 and older reported they never walk or had not done so during a 30-day period over the summer of 2002. This represents roughly 44 million individuals. Disabilities and other health impairments (24.5%, SE=1.12) and bad weather or wrong season (22.0%, SE=1.11) were the most cited reasons for not walking. Persons age 65 and older who did not walk, citied disabilities and health impairments as the primary reason (49.2%, SE=2.64). Other reasons that adults age 16 and older have not walked included:

- Too busy/No opportunity (18.8%, SE=1.06)
- Other transportation is faster (4.0%, SE=0.52)
- Lazy (3.9%, SE=0.53)
- Don't want to/Don't enjoy it (3.5%, SE=0.49)
- No safe place to walk (3.0%, SE=0.44)
- Prefer to drive/Have a vehicle (2.5%, SE=0.43)
- Other (17.9%, SE=1.02)

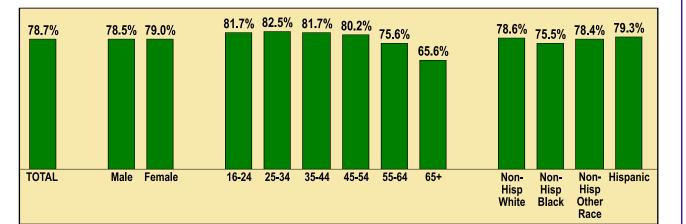
Number of Reported Walking Trips

An estimated 275 million walking trips are made during the summer of 2002. On the last day persons took a walking trip, over half (57.4%, SE=0.66) took one walking trip, 29.5% (SE=0.62) took two walking trips, 7.8% (SE=0.36) took three walking trips, and the remainder took four or more trips (5.5%, SE=0.31). This translates to an average of 1.7 trips per pedestrian per day they walk. The average number of walking trips declined with age from a high of 1.9 trips by 16-24 year old pedestrians to a low of 1.5 trips among pedestrians age 65 and older.

Walking Trip Lengths

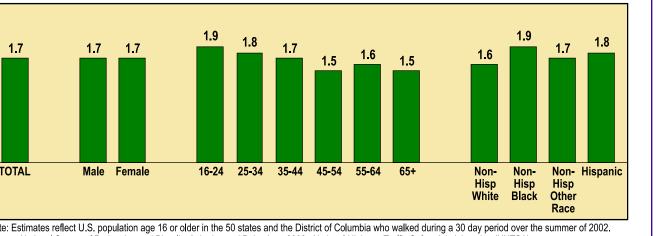
The average length of a walking trip taken on a typical day during the summer was 1.2 miles (SE=0.02). More than one-fourth of trips (26.9%, SE=0.51) were shorter than one-quarter of a mile while 14.8% (SE=0.38) of trips were more than 2 miles in length. Walking trips taken for exercise or recreation averaged 1.9 miles (SE=0.03), as compared to 0.8 miles (SE=0.02) for trips taken for other purposes.

Percentage Walking In Past 30 Days By Gender, Age, Race/Ethnicity



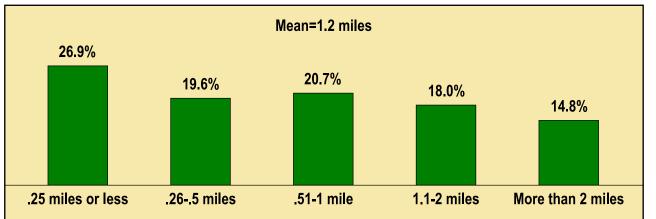
Note: Estimates reflect total U.S. population age 16 or older in the 50 states and the District of Columbia Source: National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, 2002. National Highway Traffic Safety Administration (NHTSA)

Average Total Number Of Walking Trips On Most Recent Day By Gender, Age, Race/Ethnicity



Source: National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, 2002. National Highway Traffic Safety Administration (NHTSA)

Frequency Of Total Miles Traveled Per Trip On Most Recent Day Walked



Note: Estimates are based on total trips taken on most recent day walked Source: National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, 2002. National Highway Traffic Safety Administration (NHTSA)

and Bureau of Transportation Statistics (BTS). **Purpose of Walking Trips**

Pedestrians reported a variety of reasons as the primary purpose for the walking trips they took. The most common purposes for walking trips included walking for exercise or health reasons (27.0%, SE=0.46), to run personal errands (17.3%, SE=0.41), or for recreation (15.3%, SE=0.38). Other primary trip purposes included:

- To go home (10.2%, SE=0.32) • Walk the dog (4.0%, SE=0.20)
- Visit a friend or relative (8.8%, SE=0.31) • Other (12.3%, SE=0.39)
- Commuting to school or work (5.1%, SE=0.24)

Facilities Used for Walking Trips

Pedestrians took about 124 million trips on sidewalks (45.1%, SE=0.53) though many also walked on paved roads, not on shoulders (24.8%, SE=0.46). Other facilities used for walking trips included:

- Shoulders of paved roads (8.4%, SE=0.31)
- Other (3.0%, SE=0.17) Unpaved roads (8.0%, SE=0.29)
- Bicycle paths/Walking paths/Trails (5.8%, SE=0.24)

Views on Design of Communities for Walking Safety

Nearly three out of four adults age 16 or older were "very" or "somewhat satisfied" with how their communities were designed for pedestrian safety (74.1%, SE=0.57). Those who have walked in the past 30 days expressed higher satisfaction levels (75.8% very or somewhat satisfied, SE=0.66) than those who have not walked (67.7%, SE=1.12). Regardless of their satisfaction level or whether they have walked in the past 30 days, (34.0%, SE=0.55) of adults age 16 or older recommended a variety of changes to their communities for pedestrians. Reported changes included:

- Providing pedestrian facilities, e.g., sidewalks, traffic signals, Making areas for walking safer (4.7%, SE=0.44)
- lighting or crosswalks (74.7%, SE=0.88)
- Improving existing pedestrian facilities (12.5%, SE=0.64)
- Enforcing laws governing pedestrians (5.1%, SE=0.44)
- Changing existing laws governing pedestrians (2.8%, SE=0.33) • Other suggestions (8.7%, SE=0.58)

• Grass or fields (4.9%, SE=0.23)

Amount Of Bicycling And Trip Information

Prevalence of Bicycling

About 27.3% of the driving age public (age 16 or older) rode a bicycle at least once during a 30-day period over summer of 2002. This equates to approximately 57 million persons age 16 or older that rode a bicycle. Males were more likely to ride a bicycle (34.0%) than were females (21.3%). Incidence of bicycling declined steadily with age from a high of 39.1% among persons ages 16 to 24 to 8.6% among persons ages 65 or older.

Reasons for Not Bicycling

Nearly three-fourths of those age 16 or older (72.1%) never rode a bicycle or had not done so during a 30-day period over the summer of 2002. This represents approximately 151 million individuals who did not bicycle. Lack of access to a bicycle is the most cited reason for not bicycling, mentioned by 26.0% (SE=0.61) of the respondents. Additional reasons cited for not biking included:

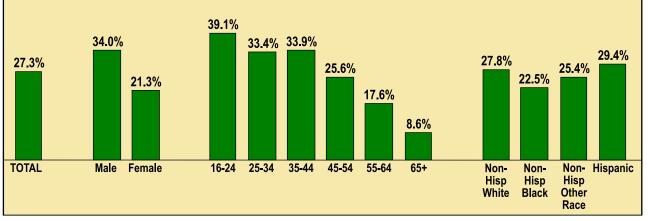
- Too busy/No opportunity (16.9%, SE=0.52)
- Disability/Other health impairment (10.3%, SE=0.40)
- Bad weather/Wrong season (8.2%, SE=0.38) • Don't want to/Don't enjoy it (6.5%, SE=0.35)
- Age (5.3%, SE=0.30)
- No safe place to ride (3.4%, SE=0.24)
- Don't know how to ride (3.0%, SE=0.25)
- Prefer to walk/run (2.6%, SE=0.21)
- Other (18.0%, SE=0.53)

Number of Reported Bicycle Trips

An estimated 91 million bicycling trips were made during the summer of 2002. Over half of bicyclists took just one trip on the last day they rode (57.7%, SE=1.16), 31.2% took two trips (SE=1.10) and the remainder took three or more trips (11.1%, SE=0.78). This translates to an average of 1.6 trips per bicyclist per day bicycled. Trips are defined as going from a starting point to a destination for a specific purpose without any stops along the way. Men who bicycled took an average of 1.7 trips on the last day they rode compared to 1.5 trips for women who bicycled. The number of bicycling trips declined with age from a high of 1.9 trips per day among bicyclists under age 25 to 1.4 trips per day among bicyclists 55 or older.

Bicycling Trip Length

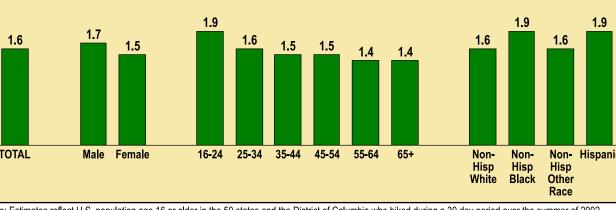
The average length of a bicycling trip taken on a typical day during the summer was 3.9 miles (SE=0.11). About 38.6% (SE=0.94) of trips were less than 1 mile, while 7.3% (SE=0.48) of trips were more than 10 miles in length. Trips whose purpose was for exercise or recreation were longer (5.6 miles, SE=0.20) than trips that were for other purposes (2.2 miles, SE=0.09).



Percentage Bicycling In Past 30 Days By Gender, Age, Race/Ethnicity

Note: Estimates reflect total U.S. population age 16 or older in the 50 states and the District of Columbia.

Average Total Number Of Bicycling Trips On Most Recent Day By Gender, Age, Race/Ethnicity



Note: Estimates reflect U.S. population age 16 or older in the 50 states and the District of Columbia who biked during a 30 day period over the summer of 2002.

Frequency Of Total Miles Traveled Per Trip On Most Recent Day Bicycled



Source: National Survey of Pedestrian and Bicyclist Attitudes and Behaviors, 2002. National Highway Traffic Safety Administration (NHTSA) and Bureau of Transportation Statistics (BTS)

Purpose of Bicycling Trips

Bicyclists reported a variety of reasons as the primary purposes for the bicycling trips they took. The most common purposes of trips were for recreation (26.0%, SE=0.79) and for exercise or health reasons (23.6%, SE=0.76). Additional primary trip purposes included: • Commuting to school/work (5.0%, SE=0.43) • To go home (14.2%, SE=0.67)

- Personal errands (13.9%, SE=0.65)
 - Bicycle ride (2.3%, SE=0.28)
- To visit a friend or relative (10.1%, SE=0.60) • Other (4.9%, SE=0.42)

Facilities Used for Bicycling Trips

Bicyclists took roughly 44 million trips on paved roads, not on shoulders (48.1%, SE=0.92). Other facilities used for bicycling trips included: • Bicycle lanes on roads (5.2%, SE=0.44)

- Sidewalks (13.6%, SE=0.66)
- Bicycle paths/Walking paths/Trails (13.1%, SE=0.60)
- Shoulders of paved roads (12.8%, SE=0.63)
- Unpaved roads (5.2%, SE=0.41)
- Other (2.1%, SE=0.28)

Views on Design of Communities for Bicycling Safety

One-half of all adults age 16 or older are "very" or "somewhat" satisfied with how their communities are designed with regards to bicyclist safety (50.2%, SE=0.54).

- Initiating bicycle safety education (6.7%, SE=0.41) Providing bicycle facilities, e.g., bicycle trails, paths, lanes,
- racks, traffic signals, lighting or crosswalks (73.0%, SE=0.76) • Making areas for bicycling safer (6.0%, SE=0.40)

 - Enforcing laws governing bicycling (3.6%, SE=0.32)
 - Other suggestions (7.2%, SE=0.44)

• Improving existing bicycle facilities (7.8%, SE=0.46)

• Changing existing laws governing bicycles (7.3%, SE=0.45)

Those who have bicycled in the past 30 days expressed higher satisfaction levels (57.4% very or somewhat satisfied, SE=1.01) than those who have not bicycled (47.3%, SE=0.60). Regardless of their satisfaction level or whether they have bicycled in the past 30 days, respondents were asked to recommend changes to their communities for bicyclists. Almost half of the respondents reported the need for changes (46.9%, SE=0.58). Reported changes included: